

Forane[®] HTS 1233zd

Excellent Choice for Centrifugal Chillers

- **Low Environmental Impact**
- **High Energy Efficiency**
- **Safety in Use**



THE EFFICIENT CHOICE FOR CHILLERS

Forane[®] HTS 1233zd refrigerant offers an excellent balance of refrigerant properties for use in centrifugal chillers, along with high efficiency, low environmental impact, and non-flammability.

Sustainability

- Low Global Warming Potential >99.9% reduction versus 134a
- Non-Ozone Depleting Substance
- Non-Volatile Organic Compound
- EPA SNAP Approved

Safety in Use

- ASHRAE Class A1
- Non-Flammable
- Lowest level of toxicity
- Low Pressure

Versatility

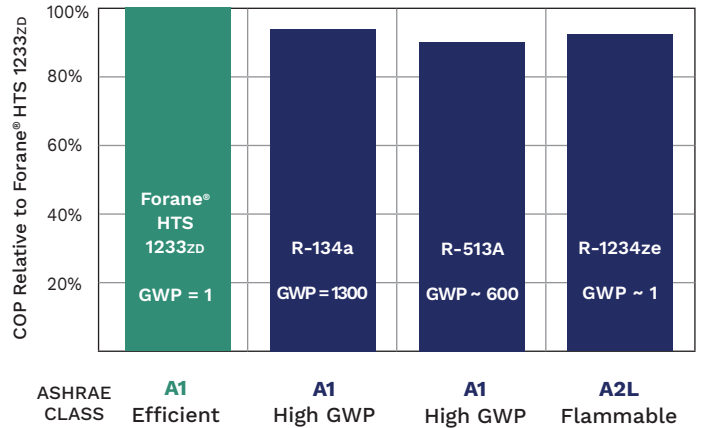
- Can use with typical lubricants
- Mineral Oil, POE, and PVE



Forane® HTS 1233zD

PROPERTIES OF FORANE® HTS 1233zD		
ASHRAE DESIGNATION	R-1233zD (E)	
ASHRAE CLASSIFICATION	A1	
CHEMICAL NAME	trans-1-chloro-3,3,3-trifluoroprop-1-ene	
FORMULA	CF ₃ CH=CHCl (E)	
CAS NO.	102687-65-0	
MOLECULAR WEIGHT (G/MOL)	130.5	
GWP (100 YR)*	1	
FLAMMABILITY LIMIT (VOL %) LFL/UFL (BY ASHRAE 34 @ 20°C)	None/None	
SPECIFICATION	Meets/Exceeds AHRI 700 Standard	
	SI UNITS	ENGLISH UNITS
BOILING POINT	18.3°C	64.9°F
CRITICAL TEMPERATURE	167.3°C	333.1°F
CRITICAL PRESSURE (BAR/PSIG)	36.6 bar	516 psig
VAPOR PRESSURE @ 20°C	1.08 bar	1.0 psig
LIQUID DENSITY @ 20°C	1.27 g/mm ³	79.3 lb/ft ³

EFFICIENCY COMPARISON



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